Elizabeth City State University

"Department of Technology - Aviation Science" Effective: Fall 2019

A Uniform Articulation Agreement

Between

Aviation Science Programs

And

The North Carolina

Community College System Institutions

With

Associate Degree Programs in Aviation Science



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BACKGROUND

Elizabeth City State University (ECSU) offers a baccalaureate degree program in Aviation Science, including specializations in Flight Education/Professional Pilot, Aviation Management, Aviation Electronics (Avionics), Air Traffic Control, and Unmanned Aerial Systems. The B.S. Aviation Science degree is a four-year collegiate aviation education program designed to prepare students for a variety of positions in both the aviation and aerospace industries. ECSU is the only institution in the University of North Carolina System with aviation programs.

ECSU currently has an articulation agreement with Guilford Technical Community College. At least three additional community colleges have expressed interest in establishing aviation sciences articulation agreements.

PURPOSE

This document presents an academic progression agreement that will promote educational advancement opportunities for aviation science programs. As of March 2019, the agreement will be effective between ECSU and the following North Carolina community colleges, with specifics of the programs listed in the appendices A-C:

Guilford Technical Community College

Lenoir Community College

Sandhills Community College

In the future, should additional North Carolina community colleges desire to join into this agreement, they need only agree to the terms herein and their articulation matrix will be added to the appendices. The community college and ECSU will not need to construct a separate articulation agreement—this agreement shall serve as a multi-lateral articulation agreement open to all North Carolina community colleges to join, as long as they agree to the provisions contained in this agreement.

TERMS

ECSU and the signatory community colleges acknowledge that recipients of an Associate in Applied Science (AAS) degree may seek to transfer to ECSU to pursue a Bachelor of Science in Aviation Science degree, with minors in Flight Education, Aviation Management, Air Traffic Control, or Avionics.

Therefore, ECSU and the community college signatories hereby join in a collaborative effort to facilitate the transfer of students graduating with AAS degrees to a baccalaureate degree program in Aviation Science at ECSU and agree to the following terms and conditions:

- 1. The parties agree that a recipient of an AAS degree in an aviation-related field offered at a community college party to this agreement, (and as noted in the related appendix) with at least a cumulative grade point average (GPA) of 2.0 based on a 4.0 scale will be admitted to ECSU, provided all other conditions are satisfied.
- 2. ECSU agrees to accept college transfer coursework completed at the signatory community college as equivalents to the courses in accordance with Schedule A, for general education credits, and in the associated appendix for the separate community colleges for requirements related to the B.S. in Aviation Science and the desired concentration, subject to the requirements of ECSU's Undergraduate Admissions Policy (ECSU Policy 300.3.1), as it may be amended from time to time. The courses approved for transfer credit must have been taught by the community college's faculty who meet their institution's credential requirements and those of the Southern Association of Colleges and Schools Commission of Colleges (SACSCOC). Only courses with a grade of "C" or better from an accredited institution are considered transferable.
- 3. A recipient of an AAS degree from the community colleges who applies for admission to ECSU and is admitted as a transfer student may receive up to 65 semester hours of academic credit. Courses with grades of "C" or higher will transfer based on the allowance indicated by Schedule A and the individual institution's appendix.
- 4. A minimum of thirty (30) semester hours of credit at the upper level must be earned through regular enrollment at ECSU, including a minimum of fifteen (15) semester hours of credit in junior/senior-level courses in the major field. A minimum of 120 semester hours of credit must be completed for ECSU to award the Bachelor of Science in Aviation Sciences.
- 5. This agreement shall become effective on March 1, 2019 and shall remain in effect until amended in accordance with Section 6 below or terminated in accordance with Section 7 below. ECSU and the signatory community colleges will review the agreement biannually (odd number years) to review program content and any potential impact on this agreement, to allow changes prior to catalog revisions.
- 6. This agreement may be amended by mutual agreement between all parties. Signatory community colleges may amend their appendix as needed, as long as the changes do not violate the agreed-upon policies of the overarching multilateral agreements (e.g., changes in course numbers).

- 7. Parties have the right to terminate this agreement upon sixty (60) days advance written notice. Parties agree that community college signatories who may terminate this agreement by December 31, would affect students who would have entered ECSU the following Fall Semester. Should this agreement be terminated, it is understood that the termination will not apply to students already taking classes under this agreement, and who shall be afforded entry into ECSU by the provisions of this agreement upon completion of their AAS.
- 8. This agreement shall be governed by and construed in accordance with the internal laws of the State of North Carolina, U.S.A, without reference to any conflict of law provisions.

IN WITNESS WHEROF, the Chancellor of Elizabeth City State University and the Presidents of the initial signatory community colleges have affixed their signatures below:

| By: Mue S.D. Karrie G. Dixon, Ed.D. | Date: $2 - 15 - 19$ |
|------------------------------------------------------------|---------------------|
| Chancellor | |
| PARTICIPATING CO | MMUNITY COLLEGES |
| By: Audio Community College Randy Parker, Ed.D President | Date: 2/14/2019 |
| By: Rusty Hunt, Ed.D. President | Date: 2 18/19 |
| By: John R. Dempsey, Ed.D. President | Date: 2-12-19 |

Schedule A

Elizabeth City State University Department of Technology

General Education Core Equivalencies

for

Bachelor of Science Degree in Aviation Science Specialization/Concentration: All

| ECSU | Title | Sem. | COMMUNITY COLLEGE | Sem |
|----------------------|----------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| General E | ducation Core 35 Hrs. | | | |
| UNIV 110 | Freshman Seminar I | 1 | ACA-111 College Student Success | 1 |
| UNIV 120 | Freshman Seminar II | 1 | ACA-122 College Transfer Success | 1 |
| ENGL 102 | English Composition & Grammar | 3 | ENG-111 Writing & Inquiry | 3 |
| ENGL 103 | English Composition & Vocabulary | 3 | ENG-112 Writing/Research in the Disciplines | 3 |
| HLTH 185 | Health Concepts | 2 | HEA-110 Personal Health/Wellness | 3 |
| | Physical Activity | 1 | PED-111, PED-113, PED-117, PED-119, PED-122, PED-123, PED-128, PED-139, PED-143, PED-152, PED-155 | 1 |
| ENGL 201 | World Literature I | 3 | ENG-261 World Literature I | 3 |
| | Humanities & Fine Arts | 2-3 | UGETC: CHI-111, CHI-112, CHI-211, CHI212, SPA-111, SPA-112, SPA-211, SPA-212ART-111, ART-114, ART-115, COM-231, ENG-231, ENG-232, ENG-241, ENG-242, MUS-110, MUS-112, PHI-215, PHI-240 Other Gen Ed Courses: COM-110, COM- 120, DRA-111, DRA-112, DRA-126, HUM- 110, HUM-115, HUM-120, HUM-121, HUM-122, HUM-130, HUM-150, HUM- 160, HUM-161, HUM-211, HUM-212, MUS-210, REL-110, REL-111, REL-112, REL-211, REL-212, REL-221 | 5-6 |
| HIST 140 HIST 141 | World Civ. I OR World Civ. II | 3 | HIS-111 World Civilization I HIS-112 World Civilization II | 3 |
| | Social & Behavioral Science | 6 | UGETC: ECO-251, ECO-252, HIS-131, HIS- 132, POL-120, PSY-150, SOC-210 Other Gen Ed Courses: ANT-210, ANT- 220, GEO-111, POL-210, POL-220, SOC- 213, SOC-225 | 6 |
| GE 118 | Pre-Calculus | 3 | MAT-171 Pre-calculus Algebra | 3 |
| PHYS 181 | General Physics with Lab | 4 | PHY-251 General Physics I | 4 |

| Natural Science and Math | 3 | UGETC: MAT-172, MAT-263, MAT-271, | 4 |
|--------------------------|---|--------------------------------------|---|
| | | MAT-272, BI0-111, BIO-112, CHM-151, | |
| | | CHM 152, PHY-151, PHY-152, PHY-252 | |
| | | Other Gen Ed Courses: AST-111/111A, | |
| | | AST-151/151A, AST-152/152A, BIO- | |
| | | 140/140A, CHM-132, GEL-111, GEL-230, | |
| | | MAT-143, MAT-152, PHY-110/110A, BIO- | |
| | | 110, CHM-131/131A | |

Appendix A

Guilford Technical Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Aviation Management

ASSOCIATE OF APPLIED SCIENCE DEGREE: Aviation Management & Career Pilot Technology, GTCC BACHELOR OF SCIENCE DEGREE: Aviation Science – Aviation Management, ECSU

| ECSU | Title | Sem. | GTCC | Sem. |
|------------|------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Cor | e Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | 7.EH EZZINIO | 1 |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | The state of the s | |
| AVI 250 | Basic Aerodynamics | 3 | *AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation& Ethics | 3 | AER 112 Aviation Laws and FARs and AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | 0 , | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Aviation N | Management Concentration 30 Hrs. | | | |
| BUAD 115 | Introduction to Business | 3 | BUS 110 Introduction to Business | |
| MNGT 221 | Principles of Management | 3 | BUS 137 Principles of Management | 3 |
| ECON 201 | Principles of Economics I | 3 | ECO-252 Principles of Macroeconomics | 3 |
| ECON 202 | Principles of Economics II | 3 | ECO-251 Principles of Microeconomics | 3 |
| ACCT 210 | Financial Accounting | 3 | ACC 120 Principles of Financial Accounting | 3 of 4 |

| AVI 232 | Aviation Safety Management System | 3 | | |
|-------------------------|------------------------------------------|---|-----------------------------|---|
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 345 | Airline Operations and Management | 3 | AER 114 Aviation Management | 3 |
| AVI 415 | Aviation Project Management | 3 | | |
| AVI 430 | Airport Planning and Management | 3 | AER 220 Airport Management | 2 |
| Electives | (Technical Restrictive 6*)18 Hrs. | | ** | |
| Note: ECSU prefixes. | J courses have AVI, FLT, ATC, TECH, ENGT | | | |

Total Transfer Credit: 36 Credit Hours of the 78 required of the AVI Major/Aviation Management Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 41 credit hours for a B.S. in Aviation Science.

^{*}AER 220 is not required as part of the GTCC Aviation Management program and must be taken as an elective.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

Guilford Technical Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Flight Education/Professional Pilot

ASSOCIATE OF APPLIED SCIENCE DEGREE: Career Pilot, GTCC

BACHELOR OF SCIENCE DEGREE: Aviation Science - Flight Education, ECSU

| ECSU | Title | Sem. | GTCC | Sem |
|-------------|------------------------------------------|------|------------------------------------------------------------------------|------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Co | re Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | AER ZITATC | 1 |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | ALI ZIT All Transportation | 3 |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation & Ethics | 3 | AER 112 Aviation Laws and FARs and AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | 9 / | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Flight Edu | cation Concentration 31 Hrs. | | | |
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 350 | Advanced Aerodynamics | 3 | | |
| AVI 420 | Crew Resource Management | 3 | | |
| AVI 275 | Aircraft Systems I | 3 | AER 216 Engines and Systems | 3 |
| FLT 116L | Private Pilot Flight Lab | 2 | AER 151 Flight-Private Pilot and AER 171 Flight-Commercial Pilot | 1 |
| FLT 320 | Instrument Ground | 3 | AER 160 Instrument Flight Theory | 3 |
| FLT 320L | Instrument Flight Lab | 2 | AER 161 Flight-Instrument Pilot | 2 |

| FLT 330 | Commercial Ground | 3 | AER 170 Commercial Flight Theory | 3 |
|----------------------------|---------------------------------------------------------|---|----------------------------------|--------|
| FLT 330L | Commercial Flight Lab | 2 | AER 171 Flight-Commercial Pilot | 2 of 3 |
| FLT 420 OR FLT 340 | Flight Instructor Ground OR Multi-Engine Ground | | AER 280 Instructor | |
| FLT 425L OR FLT 345L | Flight Instructor Flight Lab OR Multi-Engine Flight Lab | | | |
| 3 (AMA) 18 (AMA) 18 (AMA) | (Technical Restrictive 6*) 17 Hrs. | | ** | |
| Note: ECSU | courses with AVI, FLT, ATC, TECH, ENGT prefixes. | | | |

| General Education Core | 35 | Hrs. |
|---------------------------------|-----|------|
| Major Core Requirements | 37 | Hrs. |
| Flight Education Concentration | 31 | Hrs. |
| Electives | 17 | Hrs. |
| Total Hours Required for Degree | 120 | Hrs. |

Total Transfer Credit: 42 Credit Hours of the 78 required of the AVI Major/Flight Education Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 36 credit hours for a B.S. in Aviation Science.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

Guilford Technical Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Avionics Concentration

ASSOCIATE OF APPLIED SCIENCE DEGREE: Aviation Electronics (Avionics) Technology, GTCC BACHELOR OF SCIENCE DEGREE: Aviation Science – Aviation Electronics, ECSU

| ECSU | Title | Sem. | GTCC | Sem |
|-------------------------|----------------------------------------------------------------|------|------------------------------------------------------------------------------|------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Core | Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | | |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | 1 | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation& Ethics | 3 | AER 112 Aviation Laws and FARs and AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Avionics Co | ncentration 30 Hrs. | | | |
| AVNC 100 | Basic Avionics | 3 | AET 126 Electronics/Instruments and AET 214Aviation Navigation Systems | 2 |
| ENGT 100 | Intro to Engineering Technology | 3 | | |
| ENGT 105 | CADI | 3 | | |
| AVNC 240 or ENGT 340 | Flight Communication System OR Analog & Digital Communications | 3 | AET 220 Flight Management and AET 222 Aviation System Interconnect | 2 |

| AVNC 360 ENGT | Advanced Avionics OR Any 300 or above Electronics Course | 3 | AET 212 Aviation Communications Systems and AET 214 Aviation Navigation Systems | 2 |
|------------------|----------------------------------------------------------|---|---------------------------------------------------------------------------------------|---|
| AVNC 380 | Flight Control Control | | | 1 |
| Or ENGT 360 | Flight Control System Or Control Systems | 3 | | |
| ENGT 205/L | Circuit Analysis | 4 | AET 122 Airframe Electrical and AET Aviation Engine Electrical | 2 |
| ENGT 235/L | Analog & Digital Circuits I with Lab | 4 | 3 | _ |
| ENGT 335/L | Analog & Digital Circuits II with Lab | 4 | | |
| Electives (T | echnical Restrictive 6*) 18 Hrs. | | ** | |
| | | | AET Aviation Engine Electrical | 2 |
| | | | AET 224 Advanced Wire/Troubleshooting | 4 |
| | | | AET 226 Flight Line Testing | 2 |

Total Transfer Credit: 42 Credit Hours of the 78 required of the AVI Major/Flight Education Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 36 credit hours for a B.S. in Aviation Science.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

Appendix B

Lenoir Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Aviation Management

ASSOCIATE OF APPLIED SCIENCE DEGREE: Aviation Management, LCC

BACHELOR OF SCIENCE DEGREE: Aviation Science – Aviation Management, ECSU

| ECSU | Title | Sem. | Lenoir | Sem |
|------------|------------------------------------------|------|-------------------------------------------------------------------|--------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Cor | e Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | ACIVELETING | 1 |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation & Ethics | 3 | AER 112 Aviation Laws and FARs and *AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | 3 | + |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Aviation N | Management Concentration 30 Hrs. | | | |
| BUAD 115 | Introduction to Business | 3 | BUS 110 Introduction to Business | 3 |
| MNGT 221 | Principles of Management | 3 | BUS 137 Principles of Management | 3 |
| ECON 201 | Principles of Economics I | 3 | ECO-252 Principles of Macroeconomics | 3 |
| ECON 202 | Principles of Economics II | 3 | ECO-251 Principles of Microeconomics | 3 |
| ACCT 210 | Financial Accounting | 3 | ACC 120 Principles of Financial Accounting | 3 of 4 |

| Note: ECSU prefixes. | J courses have AVI, FLT, ATC, TECH, ENGT | | | |
|-------------------------|------------------------------------------|---|-----------------------------|---|
| Electives | (Technical Restrictive 6*)18 Hrs. | | ** | |
| AVI 430 | Airport Planning and Management | 3 | AER 220 Airport Management | 2 |
| AVI 415 | Aviation Project Management | 3 | | |
| AVI 345 | Airline Operations and Management | 3 | AER 114 Aviation Management | 3 |
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 232 | Aviation Safety Management System | 3 | | |

Total Transfer Credit: 36 Credit Hours of the 78 required of the AVI Major/Aviation Management Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 41 credit hours for a B.S. in Aviation Science.

^{*}AER 220 is not required as part of the Lenoir Aviation Management and must be taken as an elective.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

^{***}General Education Core: Lenoir CC does not offer ENG 261 World Lit I. Course substitution of ENG 231 American Lit I or ENG 241 British Lit I can be accepted for credit.

Lenoir Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Flight Education/Professional Pilot

ASSOCIATE OF APPLIED SCIENCE DEGREE: Pilot (Manned), LCC

BACHELOR OF SCIENCE DEGREE: Aviation Science - Flight Education, ECSU

| ECSU | Title | Sem. | Lenoir | Sem. |
|-------------|------------------------------------------|------|------------------------------------------------------------------------|------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Co | re Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | | |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | • | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation& Ethics | 3 | AER 112 Aviation Laws and FARs and AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Flight Edu | cation Concentration 31 Hrs. | | | |
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 350 | Advanced Aerodynamics | 3 | | |
| AVI 420 | Crew Resource Management | 3 | | |
| AVI 275 | Aircraft Systems I | 3 | AER 216 Engines and Systems | 3 |
| FLT 116L | Private Pilot Flight Lab | 3 | AER 151 Flight-Private Pilot and AER 171 Flight-Commercial Pilot | 1 |
| FLT 320 | Instrument Ground | 3 | AER 160 Instrument Flight Theory | 3 |
| FLT 320L | Instrument Flight Lab | 3 | AER 161 Flight-Instrument Pilot | 2 |

| | Commercial Ground | 3 | AER 170 Commercial Flight Theory | 3 |
|----------------------------|---------------------------------------------------------|---|----------------------------------|--------|
| FLT 330L | Commercial Flight Lab | 3 | AER 171 Flight-Commercial Pilot | 2 of 3 |
| FLT 420 OR FLT 340 | Flight Instructor Ground OR Multi-Engine Ground | 2 | AER 280 Instructor | 2013 |
| FLT 425L OR FLT 345L | Flight Instructor Flight Lab OR Multi-Engine Flight Lab | 2 | | |
| Electives (Te | echnical Restrictive 6*) 17 Hrs. | | ** | |

Total Transfer Credit: 42 Credit Hours of the 78 required of the AVI Major/Flight Education Concentration. Depending on amount of GE transfer; students will be required to take a minimum of 36 credit hours for a BS in Aviation Science.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

^{***}General Education Core: Lenoir CC does not offer ENG 261 World Lit I. Course substitution of ENG 231 American Lit I or ENG 241 British Lit I can be accepted for credit.

Lenoir Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Avionics Concentration

ASSOCIATE OF APPLIED SCIENCE DEGREE: Pilot (Unmanned), LCC

BACHELOR OF SCIENCE DEGREE: Aviation Science – Unmanned Aerial Systems (UAS), ECSU

| ECSU | Title | Sem. | Lenoir | Sem | |
|------------------|------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--|
| Course | | Hrs. | Equivalent Course | Hrs. | |
| Major Cor | e Requirements 37 Hrs. | | -quivalent course | 1113. | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 | |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | 7.2.7.110 | 1 | |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 | |
| AVI 230 | Aviation Management | 3 | 7 - 1 - 2 - 7 - 11 - 11 - 11 - 11 - 11 - | 3 | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 | |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 | |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 | |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 | |
| AVI 315 | Aviation Legislation & Ethics | 3 | AER 112 Aviation Laws and FARs and AER 220 Airport Management | 2 | |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 | |
| AVI 411 | Transition to the Aviation Industry | 3 | The state of the s | 3 | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | | |
| AVI 460 | Aviation Internship | | | | |
| | OR | 3 | | | |
| AVI 465 | Aviation Capstone | | | | |
| UAS Conce | ntration 30 Hrs. | | | | |
| BUAD 115 | Introduction to Business | 3 | BUS 110 Introduction to Business | 3 | |
| MNGT 221 | Principles of Management | 3 | BUS 137 Principles of Management | 3 | |
| BUAD 190 | Management Information Systems | 3 | === == : :opics of Management | 3 | |
| ACCT 210 | Financial Accounting | 3 | ACC 120 Principles of Financial Accounting | 3 of 4 | |
| ENGT 100 | Introduction to Engineering | 3 | EGR 150 Intro to Engineering | 2 | |
| JAS 100 | Introduction to UAS | 3 | UAS 110 Intro to UAS Operations | 3 | |
| UAS 200 | UAS and the NAS: Laws & Regulations | 3 | and to one operations | 3 | |
| JAS 250 | Operational Sensors and Payload | 3 | | | |

| Electives (| Technical Restrictive 6*) 18 Hrs. | | |
|-------------|-----------------------------------|---|--|
| UAS 400L | UAS App Lab II (Pre-Ag/Surveying) | 3 | |
| UAS 350L | UAS App Lab I (Design) | 3 | |

| General Education Core | 35 Hrs.*** |
|---------------------------------|------------|
| Major Core Requirements | 37 Hrs. |
| Avionics Concentration | 30 Hrs. |
| Electives | 18 Hrs. |
| Total Hours Required for Degree | 120 Hrs. |

^{***}General Education Core: Lenoir CC does not offer ENG 261 World Lit I. Course substitution of ENG 231 American Lit I or ENG 241 British Lit I can be accepted for credit.

Appendix C

Sandhills Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Aviation Management

ASSOCIATE OF APPLIED SCIENCE DEGREE: Aviation Management, SCC

BACHELOR OF SCIENCE DEGREE: Aviation Science – Aviation Management, ECSU

| ECSU | Title | Sem. | Sandhills | Sem. | |
|------------|------------------------------------------|------|----------------------------------------------------------------|--------|--|
| Course | | Hrs. | Equivalent Course | Hrs. | |
| Major Cor | e Requirements 37 Hrs. | | | | |
| AVI 100 | Introduction to Aviation | | AER 113 History of Aviation | 2 | |
| | | 3 | and | | |
| | | | AER 211 ATC | 1 | |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | | | |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 | |
| AVI 230 | Aviation Management | 3 | | | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 | |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and | 2 | |
| | | | AER 211 ATC | 1 | |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 | |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 | |
| AVI 315 | Aviation Legislation& Ethics | 3 | AER 112 Aviation Laws and FARs and *AER 220 Airport Management | 2 | |
| | | | | 1 | |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 | |
| AVI 411 | Transition to the Aviation Industry | 3 | | | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | | |
| AVI 460 | Aviation Internship | | | | |
| | OR | 3 | | | |
| AVI 465 | Aviation Capstone | | | | |
| Aviation N | Management Concentration 30 Hrs. | | | | |
| BUAD 115 | Introduction to Business | 3 | BUS 110 Introduction to Business | 3 | |
| MNGT 221 | Principles of Management | 3 | BUS 137 Principles of Management | 3 | |
| ECON 201 | Principles of Economics I | 3 | ECO-252 Principles of Macroeconomics | 3 | |
| ECON 202 | Principles of Economics II | 3 | ECO-251 Principles of Microeconomics | 3 | |
| ACCT 210 | Financial Accounting | 3 | ACC 120 Principles of Financial Accounting | 3 of 4 | |

| AVI 232 | Aviation Safety Management System | 3 | | |
|-------------------------|------------------------------------------|---|-----------------------------|---|
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 345 | Airline Operations and Management | 3 | AER 114 Aviation Management | 3 |
| AVI 415 | Aviation Project Management | 3 | | |
| AVI 430 | Airport Planning and Management | 3 | AER 220 Airport Management | 2 |
| Electives | (Technical Restrictive 6*)18 Hrs. | | ** | |
| Note: ECSU prefixes. | J courses have AVI, FLT, ATC, TECH, ENGT | | | |

Total Transfer Credit: 36 Credit Hours of the 78 required of the AVI Major/Aviation Management Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 41 credit hours for a B.S. in Aviation Science.

^{*}AER 220 is not required as part of the Sandhills Aviation Management and must be taken as an elective.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

^{***} ACA 115 Success & Study Skills (1 SCH) can be substituted for UNIV 110 Freshman Seminar (1 SCH). General Education Core: PHY 151 College Physics I (4 SCH) can be substituted for PHYS 181 General Physics with Lab (4 SCH).

Sandhills Community College to Elizabeth City State University

Curriculum Guide – Major and Elective Requirements for

Aviation Science

Specialization/Concentration: Flight Education/Professional Pilot

ASSOCIATE OF APPLIED SCIENCE DEGREE: Career Pilot, SCC

BACHELOR OF SCIENCE DEGREE: Aviation Science – Flight Education, ECSU

| ECSU | Title | Sem. | Sandhills | Sem |
|-------------|------------------------------------------|------|------------------------------------------------------------------------|------|
| Course | | Hrs. | Equivalent Course | Hrs. |
| Major Cor | e Requirements 37 Hrs. | | | |
| AVI 100 | Introduction to Aviation | 3 | AER 113 History of Aviation and AER 211 ATC | 2 |
| AVI 122 | Orientation Seminar for Aviation Science | 1 | 2000-9100-300-01009000000 | |
| AVI 220 | Air Transportation | 3 | AER 217 Air Transportation | 3 |
| AVI 230 | Aviation Management | 3 | | |
| AVI 250 | Basic Aerodynamics | 3 | AER 210 Flight Dynamics | 3 |
| AVI 260 | Aviation Human Factors & Safety | 3 | AER 218 Human Factors in Aviation and AER 211 ATC | 2 |
| AVI 270 | ATC and the NAS | 3 | AER 110 Air Navigation | 3 |
| AVI 314 | Aviation Meteorology | 3 | AER 111 Aviation Meteorology | 3 |
| AVI 315 | Aviation Legislation & Ethics | 3 | AER 112 Aviation Laws and FARs and *AER 220 Airport Management | 2 |
| FLT 110 | Private Pilot Ground | 3 | AER 150 Private Pilot Flight Theory | 3 |
| AVI 411 | Transition to the Aviation Industry | 3 | | |
| AVI 370 | Aviation Research Methods and Stats | 3 | | |
| AVI 460 | Aviation Internship | | | |
| | OR | 3 | | |
| AVI 465 | Aviation Capstone | | | |
| Flight Educ | cation Concentration 31 Hrs. | | | |
| AVI 340 | Corporate Flight Operations | 3 | | |
| AVI 350 | Advanced Aerodynamics | 3 | | |
| AVI 420 | Crew Resource Management | 3 | | |
| AVI 275 | Aircraft Systems I | 3 | AER 216 Engines and Systems | 3 |
| FLT 116L | Private Pilot Flight Lab | 3 | AER 151 Flight-Private Pilot and AER 171 Flight-Commercial Pilot | 1 |
| FLT 320 | Instrument Ground | 3 | AER 160 Instrument Flight Theory | 3 |
| FLT 320L | Instrument Flight Lab | 3 | AER 161 Flight-Instrument Pilot | 2 |

| FLT 330 | Commercial Ground | 3 | AER 170 Commercial Flight Theory | 3 |
|--------------|--------------------------------------------------|---|----------------------------------|--------|
| FLT 330L | Commercial Flight Lab | 3 | AER 171 Flight-Commercial Pilot | 2 of 3 |
| FLT 420 | Flight Instructor Ground | | AER 280 Instructor | 3 |
| OR | OR | 2 | | |
| FLT 340 | Multi-Engine Ground | | | |
| FLT 425L | Flight Instructor Flight Lab | | | |
| OR | OR | 2 | | |
| FLT 345L | Multi-Engine Flight Lab | | | |
| Electives (| Technical Restrictive 6*) 17 Hrs. | | ** | |
| Note: ECSU c | courses with AVI, FLT, ATC, TECH, ENGT prefixes. | | | |

| General Education Core | 35 Hrs.*** |
|---------------------------------|------------|
| Major Core Requirements | 37 Hrs. |
| Flight Education Concentration | 31 Hrs. |
| Electives | 17 Hrs. |
| Total Hours Required for Degree | 120 Hrs. |

Total Transfer Credit: 42 Credit Hours of the 78 required of the AVI Major/Flight Education Concentration. Depending on amount of GE transfer, students will be required to take a minimum of 36 credit hours for a B.S. in Aviation Science.

^{*}AER 220 is not required as part of the Sandhills Aviation Management and must be taken as an elective.

^{**} Technical Restrictive Electives include any department courses not specifically included in the student's selected concentration.

^{***}ACA 115 Success & Study Skills (1 SCH) can be substituted for UNIV 110 Freshman Seminar (1 SCH). General Education Core: PHY 151 College Physics I (4 SCH) can be substituted for PHYS 181 General Physics with Lab (4 SCH).